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CONTINUING "THE ELEMENTARY SCHOOL TEACHER"

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EDUCATIONAL NEWS AND EDITORIAL COMMENT

A New Bureau of Efficiency

Oakland, California, has worked out in a systematic way a plan of co-operation between its public-school system and the two universities which are situated near at hand. The plan is fully described in a circular issued by the Board of Education. This circular is accompanied by a detailed statement of the various research problems which are to be taken up. The statement of problems is too lengthy to quote here, but may be secured by writing to the Bureau of Information.

There are many other centers where higher institutions of learning could be utilized in the same way. Where a university or college with a department of education is not at hand, normal schools are very frequently near enough to enter into the same type of co-operation. Furthermore, school superintendents will find that institutions not in their own cities but in the neighboring part of the state are very frequently glad to make the kind of arrangement that is here suggested. The following is the full statement from the Oakland Board of Education.

On July 1 of the present year, the Oakland Board of Education created a new bureau to be known as the Bureau of Information, Statistics, and Educational Research. As intimated in the title, it is the duty of the director of this bureau to look after the research work done in the school department.

This general duty falls naturally into about three divisions as follows:

1. The conducting of research studies suggested by experience or ordered by the Board of Education or the superintendents.

2. The encouraging of the research or scientific spirit in teachers and principals, and the direction of the studies undertaken by them when such direction is needed. (This work is described in detail in *Information Circular No. 3* of this bureau, which will be sent on application.)

3. The protection of the schools against unnecessary interruption by research students whose problems are unimportant or whose training is inadequate, and the assistance of properly qualified students who wish to investigate important problems in the schools.

In accordance with the last-named duty, arrangements have been made whereby advanced students of the University of California and of Leland Stanford Junior University may undertake research studies in the Oakland schools under the supervision of their own instructors and with the assistance of the director of the new bureau. Other properly qualified persons will also be allowed to conduct studies which are worth while upon obtaining the written permission of the director.

Interested students of the University of California should consult the appropriate instructors as follows:

1. Students of education, any of the staff.
2. Students of psychology, Professors Stratton or Brown.
3. Students of social economics, Professor Peixotto.
4. Students of hygiene, Dr. Force.
5. Students of pathology and bacteriology, Dr. Meyer.

At Leland Stanford Junior University, students should consult:

1. Students of education, any of the staff.
2. Students of psychology, Professors Angell or Martin.
3. Students of social economics, Professor Wildman.
4. Students of bacteriology and immunity, Professor Manwaring.

School Surveys

The surveys which are being organized at the present time differ from the earlier examples of such inquiries in that they are being undertaken before any emergency arises which compels the survey to be carried on under the adverse conditions of haste and partisan feeling. When a school system is under violent criticism, a survey must, of necessity, reflect the fact. When, on the other hand, a survey is undertaken for the purpose of finding out in a large and deliberate fashion what the needs of the schools are, there is very great promise that the outcome will be scientific and productive.

The following quotation illustrates the different types of activity of this sort which have been announced during the month of August. The first is from the *Times* of Seattle, Washington:

A Vocational Education Survey

Under the direction of Dr. Herbert G. Lull, professor of education in the University of Washington, the state commission on vocational education, of which Dr. Lull is chairman, is preparing to undertake an extensive survey of Washington for the purpose of assembling every essential fact bearing upon this phase of educational work. Such facts as are derived from the survey are intended for the guidance of the state legislature in the drafting of laws establishing vocational schools in Washington.

For the purposes of the survey, typical counties of the state will be selected. King, Pierce, Snohomish, and Whatcom counties will be fields of investigation in western Washington, while several representative counties in eastern Washington will also be included in the area to be surveyed.

Broadly speaking, the survey will seek data along social, industrial, and educational lines. One of the first aims of the commission is to ascertain the opinions of leading men, commercial organizations, labor unions, granges, and women's clubs concerning vocational education. The number of pupils in each locality likely to attend these vocational schools will also be ascertained as accurately as possible.

The advantages of each community with reference to its adaptability to the purposes of a vocational school will be investigated. For this purpose its industrial and agricultural status, its transportation facilities, its natural resources, and its position as a central point for a given district will be considered.

From a social standpoint the character of the population will be made a subject of study. Whether or not the people of the community are for the most part native or foreign born will be a factor for consideration. The intellectual standards of the community, its standard of living, and its various other sociological attributes will be closely studied.

In agricultural communities attention will be given to the extent and the character of the land surrounding a given center. The number of farms under cultivation, the estimated productivity of the district, and the principal products of the soil of the section will be listed and filed for reference.

School equipment possessed by each city or district will also be made a subject of study during the survey to be undertaken by the commission.

From the data which the survey will give to the commission, plans for a system of vocational schools in Washington will then be drafted. It is expected that this survey will have been completed and plans prepared in time to lay the matter comprehensively before the legislature when that body convenes early in 1915.

The second is from the *Times* of Dubuque, Iowa:

A State Survey

The University of Iowa's extension division will help the public schools of Iowa. E. J. Ashbaugh, former principal of the high school at Bartlesville, Oklahoma, has been selected to take charge of an educational survey in Iowa. He will study specific problems presented to him by school authorities, and will make recommendations after complete investigation. He will be in a sense an educational "efficiency engineer." Mr. Ashbaugh received his M.A. and B.A. degrees from the University of Indiana, and he has had twelve years' experience in public-school work.

"Educational survey work by the extension division is our first step in an effort to serve more effectively the public-school system of the state," said O. E. Klingaman, acting director of the extension division, yesterday. "This survey will take up all phases of public-school instruction, and later will endeavor to present in printed form the best ideas for educational improvement derived from the actual experience of the most representative schools."

The third is from Madison, Wisconsin:

A Local Survey

To ascertain the exact needs demanded by industrial education and to suggest plans for best meeting these needs, a board of five persons has been named to make a survey of the city. Superintendent A. W. Siemers of the industrial schools will direct the work. Trips will be made to the manufacturing districts and to the foreign settlements. "Our intention is to find out just what the needs of the school are," said Superintendent Siemers. "We want to be of assistance to the employee and to the employer. We feel we cannot be of much help as a school until we find out the actual conditions in the city." Included in the report of the survey board will be information bearing on sanitation, moral surroundings of workers, and opportunities for advancement.

Effects of a Survey

Wherever a school survey has been carried out, interesting educational news has issued from that center during the year following. Very frequently the survey has excited adverse criticism. Even in this case the effects of the survey have been traceable during the succeeding year.

The survey made at Springfield, Illinois, appeared only a short time ago. A review of this survey will be found on another page of this issue. In the meantime, the following items clipped from the *Evening News* of that city indicate that an immediate response is being made along lines that suggested themselves during the survey.

For the first time in the history of the public schools of Springfield each teacher will have to undergo a physical examination and be able to present

a teacher's health certificate before he or she will be allowed to take her position when the schools open. The signed health certificates are now arriving in the office of the Board of Education. They show that the teachers have no contagious or infectious diseases. The examination is especially concerned about symptoms of tuberculosis. The certificate, which must be signed by an examining physician, is as follows:

> This is to certify that I have examined . . . . (name) . . . . and find no evidence of tuberculosis and that the physical condition is such as not to be prejudicial to the health of pupils or associates.
>
> Signed by
>
> *Examining Physician*

The opening of school this year in Springfield marks an epoch in the educational life of the city. The new junior high-school plan will be inaugurated, two buildings being turned over for the purpose of carrying out this plan. Also the schools, as nearly as possible, will be modeled after ideas advanced in the social survey, and, where criticisms have been directed with force and understanding, corrections will be made. Then, too, the physical condition of both teachers and pupils will enter more largely than ever into account. A physical director and supervisor of hygiene will have charge of the physical direction in the schools and during the summer months will supervise the playgrounds.

Practically all the districts of the schools have been changed this year and because of new buildings, the junior high schools and the new portable schoolhouse, there will not be an overcrowded building in the city.

The high-school building will be well filled, for, while the junior high-school plan has relieved it of about one hundred pupils, the number of out-of-town students and the growth of the city will keep it comfortably filled.

The following official announcement is clipped from the *San Francisco Examiner:*

American Montessori Courses

Madame Montessori, the greatest figure in the field of child education since Froebel, will be in San Francisco during the Panama-Pacific Exposition. For four months she will supervise the operation of the model Montessori school, which will be a part of the educational demonstration work of the exposition. Much of the credit for bringing her here is due to the officials of the National Education Association and to one of Madame Montessori's favorite pupils, Miss Katherine Moore of Los Angeles. Miss Moore has been chosen by Madame Montessori to take active charge of the class work at her model school on the exposition grounds.

Writing from Rome, Madame Montessori's secretary, Miss Harriet Barton, says: "You will be glad to hear that out of all the many parts of the world to which Madame Montessori has been invited for the purpose of giving a training course, her choice has fallen upon the great exposition in San Francisco. This

course will continue during the four months of the exposition, in 1915, following her course of lectures in London and her return to Rome to initiate the pupils into the higher stage of the work. The children to be instructed should be quite tiny, without any previous teaching. It would be well to have a small number of already well-prepared children in another school engaged in all stages of the work. This last could be a school for observation by the general public and should also have a roomy gallery all around it. Many of the directoressa's friends and disciples will co-operate in organizing and preparing the work at San Francisco.

"It is wonderful to see how rapidly the great movement is making headway. It is said that no work on education has in a short time found so many readers as the lately published translation of Madame Montessori's work. The Japanese translation is about to appear, and Dutch and Spanish translations are in hand. With all the forces calling for the educational salvation of the children, it cannot be long before governments and educational authorities will be forced to see that only in this way can they be saved. Toward this consummation the work in San Francisco, she believes, will help."

It is expected that the pupils, not only for the Montessori classes, but for the many other model schools at the exposition, for which a special building will be erected, will be furnished by California, Oregon, and Utah.

Of similar importance to the educational world is the announcement made by Director Barr of the division of congresses that plans are maturing whereby it is hoped that an international congress on Montessori methods will be held at the exposition under the management of the National Montessori Association of Washington D.C., in connection with the already assured International Congress of Education, representing the whole civilized world.

An Educational Press Agent

The following clipping taken from the *Pioneer* of St. Paul suggests the very great desirability, not only in Minnesota but throughout the United States, of acquainting the people of every community with school activities. Frequently occasion has arisen, in the past few years, to draw attention to the fact that many controversies about school policies rest upon a general ignorance of the character and purpose of these policies. If school officers could forestall these difficulties by systematically putting before their patrons an account of what they are doing and attempting to do, there would frequently be sympathy for policies that are now opposed by an uninformed public.

Minnesota soon may have the work of its state educational department heralded and explained throughout the state by a press agent. Superintendent

C. G. Schulz probably will ask the legislature in 1915 to increase educational appropriations sufficiently for the establishment of a publicity bureau in the department of education. The educational department publicity man will be very unlike the circus press agent. It will not be his duty to sing the praises of the department and extol its work in adjectives long and picturesque. The press agent of the Minnesota schools will place before the people of the state plain, unvarnished facts about the educational work the state is doing. Parents will be informed of what is being accomplished.

That the school systems of the country are in dire need of the offices of a press agent was suggested by Philander P. Claxton, United States commissioner of education. While in attendance at the National Education Association convention here in July, Mr. Claxton spoke of the need of some medium of acquainting the public with what the schools are doing.

The work of the press agent for Minnesota schools, as outlined by Mr. Schulz, would be largely of an editorial nature. He would prepare bulletins and pamphlets telling of the work of the educational department. Editorial matter for newspapers and short news articles would be prepared by the publicity man. "There are no authentic figures showing the cost of teaching at hand now," Mr. Schulz said. "We have approximate figures showing what it costs to put a pupil through the grades or through the high schools." Mr. Schulz is anxious to establish a statistical bureau in connection with his department.

Compulsory Education for Continuation Students

The community is so vitally interested in the complete education of its boys and girls that we cannot rest satisfied with the present legislation regarding compulsory attendance. The following account of the changes which are to be inaugurated in the city of Boston ought to encourage people in other parts of the country to consider an extension of the present compulsory education law.

As a result of a bill passed by the Massachusetts legislature in 1913 and confirmed by the Boston school board last December, continuation schooling in Boston will be made compulsory in September, when all pupils between the ages of fourteen and sixteen who obtained their employment certificates since last January will be forced to attend a designated continuation school. It is expected that between 5,000 and 6,000 workers will be affected by this order. These pupils must attend the school during a period of four hours a week, the hours to be arranged to meet the convenience of the employees as far as possible.

The investigations which were carried on preliminary to the passage of the bill to determine the attitude of the employers toward compulsory education of this nature brought to light the fact that, instead of being unfavorable to the

bill, the employers were almost unanimously in favor of it. They stated that they would not deprive the pupils of any wages because of the fact that they would be absent from work for four hours during the week. Most of the employers agreed that they expected to get as much work from the pupils in forty-four hours as they would get in forty-eight. Their reasons for this statement were that the gratitude of the workers who know that their employers are giving them four hours without any decrease in pay would force them to do more and better work while they were in the shops, department stores, or wherever they happen to be employed.

It is also planned to use the schools as a sort of clearing-house, so that one boy who is employed in a department store and desires to be a machinist may change his position with a boy who is employed in a machine shop but wants to work in a department store. It was learned that the attitude of the boys was very favorable toward the school, as they could take up any line of vocational work that they desired.

The instruction in the trade departments will be under men who have earned their living by working at the trade which they will teach. The teachers will spend but a part of the time in instruction, and the remainder will be devoted to visiting the homes and places of employment of the individual pupils. There will be no more than twenty in a class, men teachers being provided for the boys and women for the girls.

It is expected that from 2,000 to 2,200 pupils will start September 9 in the five-story building at 25 La Grange Street. The school will open at the same time as the regular schools, but will have a longer Christmas vacation to allow the pupils to devote their entire time to their employers' interests at a period when the business is rushed.

Open-Air School

Movements in education very frequently progress in a steady but unnoticed degree in different cities. One community tries an experiment and feels sufficiently satisfied with its success to make the experiment a permanent part of its school organization. Another community is slowly affected by the example of the success, and so on. After several years of gradual development of a given educational movement, in different communities, somebody discovers the fact that the movement has been going on and prepares a monograph showing how widespread it is. The following clipping will be of use to some later historians of education who wish to record one of the important forms of school organization now gradually spreading over the United States. It is from the *Times* of Racine, Wisconsin.

The Board of Education has voted in favor of continuing the open-air school, which was started as an experiment about four months ago. The committee reported that it had found, through the reports of those interested, that the school is doing a great amount of good, and that the need of such a school in this city is clearly demonstrated. They recommend therefore that the open-air school be made a regular part of the public-school system and that it be recognized with other special schools.

Vacation Courses in New York City

Reports from vacation schools in all parts of the country show that this movement is steadily increasing in scope. The following extracts from a long article in the *Globe* of New York City may be regarded as typical of reports that come from all parts of the country.

The vacation schools conducted by the Board of Education closed the summer season for 1914 on Friday, August 14. This has been the most successful season the vacation schools have ever known. The industrial classes have been more largely attended than in other years, and there has been a gratifying improvement in the number of children who wished to take advantage of the industrial subjects provided for them.

For the boys there were provided Venetian iron, elementary bench work, whittling, advanced bench work, basketry, chair-caning, and hammock-making. For the girls the following useful vocational subjects were taught: Cooking, housekeeping, knitting and crocheting, elementary sewing, advanced sewing, dressmaking, millinery, embroidery, hammock-making, and basketry. In the cooking classes much valuable work was done by the children, bringing their own materials and, under the supervision of efficient teachers, using the materials to make preserves. Hundreds of pints of canned fruits and vegetables were thus prepared for winter use. Every day homemade bread was made in each school and the children were encouraged to use their cooking ability at home as well as at school. In the sewing and dressmaking classes they made dresses for themselves. In many cases children made three or four dresses during the season. The material for these dresses was, of course, furnished by the children themselves. Many a proud mother will wear a dress this fall which was made through the efforts of her daughter. In the millinery classes the children were taught to make bonnets not only for themselves, but for their mothers also, and caps for their little baby brothers and sisters. The following shows the list of completed articles: Elementary sewing, 11,462; advanced bench work, 7,589; dressmaking, 2,289; millinery, 7,324; embroidery 4,772; knitting and crocheting, 5,024.

District Superintendent Stitt was specially pleased with the results accomplished in the summer trade school, conducted by the Board of Education in the educational alliance. These classes were opened for girls over fourteen

years of age who had completed the educational requirements for working-certificates. These girls would naturally go to work in the fall in factories in which they obtain only about three dollars a week. However, when they have been taught how to use machinery and the elementary principles of trade workmanship, their earning capacity is more than doubled. Miss Sara Elkus, the supervisor in the educational alliance, has arranged places in factories for many of the girls who have completed the course, so that they will start on salaries of seven, eight, or nine dollars a week. The innovation of this trade school has been entirely successful.

The opportunity classes have been wonderfully successful. These classes were intended primarily for the following children: (1) "Holdovers" or "left backs" who had failed of promotion in June. (2) Children who needed to complete the 130 days' necessary attendance as required by the state law before they could go to work. (3) Foreign children similar to the "C" classes in day school. (4) Exceptionally bright and over-age children who had been specially recommended by their principals as being able to take up advanced work. The class of children thus named had B plus or A on their report cards for the term. Thousands of children who simply had a B record in day school were anxious to take up the advance work. However, it was not thought possible that these children, naturally slow, could in such a short space of time do the full amount of the grade work. In addition to this there were not funds sufficient to provide teachers for this class of pupils. Many of these children, however, entered the industrial classes. In the opportunity classes the children were examined in English, arithmetic, history, and geography. Those who received a satisfactory rating and who had attended 90 per cent of the number of sessions were granted promotion certificates. In many cases the children were present every day. Dr. Stitt, in his visits to all of those classes, found many of them with perfect registers.

An Advertisement

We are not sure that the following clipping does not serve as an advertisement for somebody, but we venture it even at the risk of falling into the familiar newspaper trap of giving advertisements circulation as though they were news items. If the houses here described are not too expensive, they may be of use to kindergartners and others who are looking for simple and interesting material for school children. The item is from the *Ledger*, of Tacoma, Washington.

Many Tacoma children are taking advantage of a national advertising campaign being conducted by a company selling an article of building material, and as a result there are probably more doll playhouses in the city today than there ever have been before. They are sure-enough houses, too, exact replicas of the real article and attractive enough to make a grown-up stand back with

admiration. A small advertisement in a recent national publication started the thing and then it was discovered that a local building-material concern was the agent for the advertiser and could supply the demand. A rush was made and the dignified-looking building-material sample office has been having every appearance of a new department store for several days.

It seems that the same craze has hit many other cities of the country. The public schools of Winona, Minnesota, have ordered fifty of the miniature houses for use in the kindergarten and primary classes. St. Paul and Minneapolis schools have also placed orders. But the rush of the schools is nothing compared to the rush of the kiddies themselves through their parents.

The child houses come knocked down, and almost any youngster with a knack for tools can put them together.

EDUCATIONAL WRITINGS

Any adequate review of educational writings must take account of the fact that there are published in the United States more than a hundred education periodicals. The directory of the Commission of Education gives a list of a hundred and twelve such periodicals ranging from quarterly to weekly publications. The possibilities which are presented in this long list of periodicals are so distracting that it frequently is difficult or quite impossible for the individual teacher to secure the kind of reading-matter which is most helpful in organizing his work, because this matter is distributed through so many different publications.

One might begin a survey of these journals by commenting on the state journals. Almost every state has an educational journal and in some of the states two or three local journals try to occupy the field. These journals are commonly characterized by the news notes which they contain and by the reviews which they give of the questions used by the local school authorities in teachers' examinations and examinations of students. It is customary for such local journals to give in every issue a series of answers to the questions employed at the last examination. The rest of the reading-matter is made up of editorials which may in some cases deal with local educational issues but in general deal in a large and platitudinous way with broad educational matters. Then follow extracts from educational books and addresses. Indeed, one may say that the chief sources of material for such journals are educational meetings where inspirational addresses are presented by speakers who have prepared very little for the occasion and have very little to say that is either new or significant. Finally, such journals usually contain several pages of devices for teachers to employ in classroom work. These devices frequently relate themselves to the seasonal celebrations that are imminent at the time of the publication of the particular issue.

It may be that these local journals serve a valuable purpose, but one has difficulty, as he tries from month to month to discover

in them something really significant for the teaching profession, in understanding why teachers spend their money for many of them. If one goes to local institutes and sees the methods by which subscriptions for these journals are secured, he realizes that a great deal of pressure is brought to bear upon teachers to show loyalty for local publications. It is very frequently promised that these journals will give a survey of all of the important interests that are being developed in education throughout the country. Contrasting these journals with the publications of other professions, it must be admitted that the teaching profession is badly represented by the trivial and personal character of most of what appears. There ought to be some combination of these journals. The National Education Association is the natural center from which some serious, general school journal should issue. So long as the matter is left to private enterprises or is carried on in a purely local way, educational journalism will continue to give the most striking evidence of the lack of organization of the American teaching profession. One does not get in these journals any serious reviews of educational literature. One does not get a discussion of the larger issues of education.

Furthermore, the example which is set by the type of articles which commonly appear in these journals is so bad that the teaching profession may be said to lack, more than any other profession in the country, the ability to record its experiences and discoveries. One finds that a serious superintendent or principal who has a good method which he has worked out in his school is afraid to describe it for some educational journal for fear that he will be regarded as self-seeking and as an advertiser. The scientific spirit which prevails in medical publications and in publications which are used by lawyers has not yet manifested itself in the teaching profession. The editors of this *Journal* have frequently had occasion to comment on the difficulty of getting teachers to write in an impersonal way about school experiences. This difficulty is very largely to be charged to the character of present-day educational periodicals.

In sharp contrast to these local journals are serious scientific journals which try to get together studies, particularly those of a type which are worked out in scientific laboratories. This material

is commonly looked upon by practical school people as "heavy" and "unpractical." It is indeed impossible to make use of many of these studies in classroom work and in school organization. They represent the remoter, scientific principles which will have to be indirectly brought over into school processes. The taste for this sort of material has to be cultivated through a study of the sciences related to education. The criticism which is legitimately to be made of many such studies is that their authors have not attempted to point out the possible applications of their studies. The articles are unnecessarily remote from the sphere of interest of the ordinary teacher and superintendent. There is no reason at all why a practical science like applied psychology or applied sociology should not consciously aim to make its results accessible to all who are working in the practical field. Up to this time there has been very little of this conscious effort to make scientific studies appear to the ordinary reader available for his immediate task.

The earliest of the rigidly scientific publications is the *Pedagogical Seminary*, published at Clark University. This periodical has printed a very large body of material in its twenty-one volumes. It represents today a somewhat modified but ever vigorous form of the Child-Study Movement which has long been characteristic of Clark University.

A second publication containing much serious material is the *Teachers' College Record*. This publication has passed through fourteen volumes and has contained a great variety of articles, both for the elementary teacher and for the secondary teacher. It is not so much a journal as a series of monographs. Each issue is a unit in itself, and in many cases a unit supplies material which special teachers can use without reference to other issues of the *Record*.

The *Journal of Educational Psychology* is a younger member of this group of periodicals. It is published by psychologists who are interested in working out applications of their science to practical school problems. It is published in Baltimore by Warwick & York. Many of its articles relate to elementary-school work.

Three other journals may be mentioned in this connection, although they differ somewhat in type from the three that have

already been commented upon. The *Educational Review*, which is now in its forty-seventh volume, has long been known as a general educational periodical, discussing in a broad way problems of the higher schools. From time to time it includes matter which is relevant to the elementary school.

The *School Review*, which is in its twenty-second volume, devotes its attention entirely to matters related to the high school, including from time to time articles referring to admission requirements and other such relations between the high school and the college.

In recent years the *School and Home Education* has, especially in its editorial columns, taken on a more scientific character under the editorship of Professor Bagley. This journal was founded by Dr. George Brown and is published in Bloomington, Illinois; it has a long, historical record of influence in the Middle West.

The most striking development in recent educational journalism is the appearance of departmental journals. One can pick out, for example, the two journals which are published from the same center and promote the interests of handwork and vocational work in schools. These are the *Manual Training Magazine* and *Vocational Education*. The first is in its fifteenth volume and the second is in its third. They are published by Mr. Bennett and his associates in Peoria, Illinois.

Home economics has several journals. The journal published by the Home Economics Association is entitled *The Journal of Home Economics* and is in its sixth volume. The Boston Cooking School now publishes its magazine under the title, *American Cookery*. *Good Housekeeping* is a somewhat more popular journal which gives much attention to educational problems as well as to general phases of home-making.

Defective children are receiving, not only in educational publications but in state legislation and in practical school organization, much attention. Three journals may be mentioned as discussing topics relating to the training of defectives. The first is the *Training School Bulletin*, published in Vineland, New Jersey. The second is the *Psychological Clinic*, published by Professor Witmer of the University of Pennsylvania. The third is the

Journal of Psycho-Asthenics, published quarterly by the American Association for the Study of the Feeble-Minded. The first is the organ of one of the most progressive institutions in the United States for the study and treatment of defectives. The second has served as the medium for general discussions of psychological and educational problems; the third as the organ of an association is somewhat less distinctive in character.

Physical education is represented by *Mind and Body*, published in Milwaukee, and the *American Physical Education Review*, published by the American Physical Education Association, as well as by *The Playground*, published in New York by the Playground and Recreation Association of America.

There is a *Kindergarten Review* published by Milton Bradley Company, Springfield, Massachusetts. The *School Arts Magazine* is published in Boston by Mr. Bailey and his associates. The *Nature Study Review* is edited by Professor Downing and published in Chicago. The *English Journal*, published by Professor Hosic and others, is issued from Chicago. *Religious Education*, published under the auspices of the Religious Educational Association of America, is issued in Chicago. The *History Teachers' Magazine* is published in Philadelphia. A new venture is the *Rural Educator*, published in Columbus, Ohio. *School Science and Mathematics* in its fourteenth volume is published in Chicago and makes an appeal chiefly to those who are interested in problems of secondary education. Geography has a whole list of journals devoted to its interests. Of these perhaps the one most used by teachers is a journal which is not edited chiefly for school purposes, namely the *National Geographic Magazine*, which is published in Washington under the auspices of the National Geographic Society.

One might go on mentioning other special journals which aim to promote the interests of various departments, but those listed serve to emphasize the scope of this kind of publication. There are some advantages and some disadvantages in specializing educational publications. The advantages are obvious. Material is created which is of special use to specialists, and the departments concerned are more rapidly advanced than they would be if left to find a place in the miscellaneous publications which include all sorts

of material. Special teachers feel through these journals a closer contact with their departmental allies. On the other hand, the teacher or supervisor who is interested in developing his work on all sides is hindered by the necessity of getting hold of a series of departmental publications. Departmental journals tend to set up in the school distinctions and lines of separation which are harmful to the unity of the educational process. So far as the individual child is concerned, there ought not to be favored, or especially aggressive, departments. Even in the upper grades and in the high school where the work is departmentalized, every student of education realizes that the special teacher must cultivate broad, general interests if his department is to succeed. The separate publications make it increasingly difficult to satisfy this rational demand for unity in the course of study.

There are several journals which are to be classed as national rather than local in their circulation. One of the most interesting of these is the *Journal of Education*, published in Boston under the editorship of Dr. Winship. Dr. Winship is not only an editor; he is also a very active participant in all sorts of educational meetings. He lectures in different parts of the country and spends a large part of his time visiting educational experiments and coming in contact with people engaged in different phases of school work. Dr. Winship finds in the excursions which he makes about the country many interesting school experiments. Some of these he describes with the most unqualified enthusiasm. The result is that those experiments which he indorses are likely to have a large and in some cases an undue recognition. One does not like to be criticized by an educational speaker and writer whose audiences are as extensive as are those of Dr. Winship. Dr. Winship's type of judgment becomes therefore a matter of interest. He has not been converted to a belief in educational surveys and other forms of scientific study of education. His skepticism regarding these activities is in keeping with the general conservative attitude of practical educators in all parts of the country. Dr. Winship is disposed to regard the "expert" as less competent to determine school policies than is the Board of Education. The student of scientific education is disposed to be critical of a publication which

reinforces a skeptical attitude toward scientific methods and brings to such prominent attention experiments that are by no means complete and have not been tested except by personal inspection. On the other hand, such a student of education sees the enormous importance of educational publicity in the influence exercised by a single aggressive editor.

A second journal which has a large national circulation is the *American School Board Journal*, published in Milwaukee. This journal has for some years specialized on problems that are related to supervision. Supervision is a very inviting field for the publisher because if there is any class of school people who have reached the professional stage it is school superintendents and supervisors. The teacher in our public schools is so transient in his tenure of office and so shifting in his actual work and place of residence that he does not gain any large influence over the schools. Furthermore, he is not likely to be in a position to control in any great degree his own practices. Superintendents and supervisors, on the other hand, do exercise a very large influence in the management of schools, and their salaries are high enough so that they can afford to subscribe for journals and can take some part in an influential way in educational meetings. The American School Board has made its appeal to this administrative class and has served a very useful purpose in disseminating information about the educational situation in different parts of the country. Its methods are somewhat different from those of Dr. Winship in that it does not undertake to pass personal judgment upon many of the doings of the schools.

Finally, reference may be made to the *Normal Instructor and Primary Plans*, a journal which has recently united under one cover two publications which were formerly issued separately. It makes an appeal to teachers who need devices for classroom work. Every imaginable kind of aid to classroom work is to be found in this journal. It makes no pretense to a critical or scientific study of educational problems. It is a handbook and a guide for the teacher who needs devices. Such a journal as this has both its value and its danger for the educational profession. The young teacher who finds that she can secure ready-made a large number

of devices each month is very likely to give up preparing material in terms of her own immediate environment and in terms of the needs of the children whom she has in charge. She loses, accordingly, the initiative which she ought to cultivate if she is to be an independent, strong teacher. On the other hand, many a teacher who is not adequately supervised and whose training has not given her the degree of independence which would make possible the preparation of material is greatly aided by the coming once a month of this series of devices.

The general child-welfare movement which is of interest to teachers but includes institutions outside of the school is represented by several publications that deal with various aspects of public care of children. The most pretentious of these publications is a journal entitled *The Child*. This is an English publication, but includes references to the child-welfare movement in America as well as in England. The *Child Labor Bulletin* is published quarterly by the National Child Labor Committee which has its headquarters in New York City. A local publication which shows the enterprise of a single community is the *Child Welfare Bulletin*, published by the Child Welfare League of Peoria, Illinois. This publication contains discussions of many municipal activities which have to do with the children of Peoria and the neighboring country.

One series of publications which should not be omitted in any general catalogue of this type is the series of *Bulletins* published by the Bureau of Education of the United States. The statistical and descriptive information which the Commissioners of Education have collected for many years is unique among civilized nations. The countries of Europe are beginning to imitate the example of the United States in making accessible information about the schools. The Commissioner's *Reports* have gradually increased so that they were becoming unwieldy. Accordingly, a part of the material has in recent years appeared as a series of special studies. These studies deal with all sorts of topics. One may select from the list of 1913 *Bulletins* such important numbers as the following: No. 2, *Training Courses for Rural Teachers*. There are *Monthly Records of Current Publications*. Nos. 6 and 14 deal with *Agriculture Instruction in Secondary Schools*. No. 17 describes *A Trade School for*

Girls. No. 19 gives an account of *German Industrial Education*. Other titles are as follows: No. 20, *Illiteracy in the United States;* No. 23, *The Georgia Club;* No. 31, *Special Features in City School Systems;* No. 32, *Educational Survey of Montgomery County*. One can find topics of interest to all classes of teachers.

These publications are accessible only in small editions because the Bureau is not at the present time supplied with adequate funds for publication. Furthermore, the committees of Congress are not persuaded that publications of this type are demanded by American teachers. Teachers and supervisors will render a distinct service by calling upon the Bureau for those numbers of the *Bulletin* which they can advantageously use. The Bureau will thus get definite reactions from the different parts of the country upon its publications which it can use in securing the necessary funds to carry on this work. At the present time the Bureau is the only agency that is able to print elaborate monographs on various educational topics. The importance of its work in this respect cannot be overestimated. The other publications which have been referred to are dependent upon private enterprise or upon subsidies from institutions. They are so limited in scope that it is almost impossible for serious educational studies to come to light with any degree of promptness. If the Bureau could be supported in its effort to develop a serious body of educational material, it would undoubtedly succeed by this method in raising the tone of all American publications.

If the foregoing review of publications has served its purpose at all, it has called attention to the great importance of the consolidation and organization of these publications. Most teachers do not know how to find out about the journals which they ought to read. Many of them are undoubtedly misled by the energy of aggressive agents who come in contact with them but are not inspired by the desire to serve the teacher's interests in selecting the best possible journal for the teacher to read. The competition that exists between these journals is wasteful in the extreme. The repetitiousness of the publications is very great, and the trivial character of much of the output is obvious to even the casual reader. The struggle for improvement of these journals will undoubtedly go on in its present form until consolidation through associations or

through some central agency such as the Bureau of Education can be effected. In the meantime, teachers can do much to bring about a better state of affairs by making a careful study of the situation before they subscribe for journals. If instead of allowing an agent to sell them journals which do not serve their purposes teachers would canvass the matter with the aid of some such general list as that which we have aimed to present above, or by writing to all of the publications mentioned in the *Educational Directory* of the Commissioner of Education for samples, there would be very shortly a selection of stronger journals and an elimination of the weak, which would be very helpful in reducing the competition and in raising the standards and character of those journals which survive on this comprehensive and comparative basis.

A report[1] of the survey made of the city schools of Springfield is published by the Russell Sage Foundation. Dr. Ayres undertook this survey at the request of the board of education of that city. The survey differs from others which have been made up to this time in the amount of time and energy which was devoted to coming into actual contact with the school. We find the statement, unique in school surveys, that some member of the survey staff visited every class of the city. The report is a complete, general statement of the organization and present conditions of the schools and contains a number of recommendations for changes to be made. The report is also illustrated very fully by diagrams, charts, and pictures, evidently intended to give the people of the city a complete notion of their school system and of its comparative standing among the school systems of the country.

The recommendations which stand out as most conspicuous are those which call for a change in the course of study, bringing it into more intimate relation to the present-day life of the people, and introducing more vocational work. The industrial training should not be theoretical in character but practical, establishing an intimate relation between the children and the school system by allowing them to make the supplies which are needed for the school system. It is also recommended that the upper grades

[1] *The Public Schools of Springfield, Illinois.* Russell Sage Foundation. Pp. 152.

of the elementary school be included in a junior high school, thus reorganizing the high schools as well as the elementary schools of the city. The reasons for all of these recommendations are elaborately set forth in terms of the findings of the survey committee.

Special interest will attach to two features of the report. There is a very full account of the children who are thirteen years of age in the school system. Their home antecedents and their probable vocations are studied so as to show in detail how the opportunities of the school may be adjusted to the needs of these pupils. As a vocational survey of the schools this chapter will be very useful in setting the example to other school systems.

As a second feature, Dr. Ayres has repeated a type of investigation which he has made before. He took some of the material that is being employed for instruction in spelling, geography, and arithmetic directly out of the school program and asked some of the leading citizens of the city to pass an examination on these subjects. The result was that these respectable leaders in the community failed deplorably to exhibit any of the knowledge which the children in the schools were supposed to be accumulating. This is a very vivid way of showing the inadequacy of some of the work done in the schools. It is rather dangerous, however, to commit one's self to the implied theory which lies back of these tests. An ordinary citizen is likely to infer that the surveyor holds that the school ought to deal only with those subjects that can be shown to have direct relation to later life in the person of leading citizens. One could defend some useless words on the ground that they train the pupil in the fundamentals of phonetic analysis. It may be that the school program will sometimes depart from the activities of later life in order systematically to cover all the facts in a certain branch of knowledge, most of which will be forgotten so far as the details are concerned. To be sure, it would be better to find, if possible, examples drawn from the actual life of society. But as a method of determining exactly what kind of material shall be used, this testing of the ordinary citizen is not adequate.

The school survey is a problem which is of interest to all school officers. Many school systems are being surveyed either by their own corps of teachers or by outside agencies. It is very desirable that the movement should be guided by a general discussion of principles and by a clear insight into the lessons which are to be derived from the many surveys which have up to this time been carried on.

The *Yearbook*[1] will be very serviceable in bringing to the attention of all who are interested the various surveys which have been made. Mr. Smith's paper concludes with an excellent bibliography on educational and community surveys. His own discussion makes it clear that there should be a careful outline of each survey before it is undertaken. The list of topics which he gathers from the different surveys as important for consideration will serve as a guide to those who are engaged in organizing such movements.

A brief account of the surveys that have been undertaken up to this time is appended to Mr. Smith's article. This summary was originally prepared for the Committee of the National Council on Tests and Standards of Efficiency.

Two thoroughly typical English books come to hand, one dealing with a system of education,[2] and the other a textbook on psychology.[3]

Mr. Whitehouse's book is a familiar type of political document. When Parliament is about to enact new school legislation the various parties get out programs of legislation which are intended to sound the public wishes. We have in this book virtually such a preliminary statement of a party program. If this book excites favorable attention throughout the country, it is likely to be

[1] *The Thirteenth Yearbook of the National Society for the Study of Education.* Part II. "Plans for Organizing School Surveys with a Summary of Typical School Surveys." By H. L. Smith and Charles H. Judd. Chicago: The University of Chicago Press. Pp. 85.

[2] *A National System of Education.* By John Howard Whitehouse. Cambridge University Press. Pp. 92.

[3] *Know Your Own Mind.* By William Glover. Cambridge University Press. Pp. 204.

influential. If not, it has served its purpose of drawing the opinion of people, and the legislation which is ultimately formulated will have the advantage of the preliminary discussions.

Such a book succeeds in presenting in vivid form the current problems of English education. The first and most significant of these problems is the reorganization of the school system in such a way that the elementary school shall lead to higher schools. The parallel system of education in which the children of the poorer classes go to elementary schools and the children of the rich have the advantage of secondary education is breaking down rapidly in a democratic country like England. How to overcome the traditions of the older system is a grave problem. Such matters as the support of the secondary schools must be considered, for at the present time these schools are tuition schools. It is obvious that the selection of students for higher education through the present examination system is by no means satisfactory. The universities evidently do not conform to popular demands, and the discussion of a commission to look into the activities of Oxford and Cambridge is renewed in this preliminary statement of a legislative program. Industrial education and the place of local and central authorities are also pointed out as important problems. As in all of the present-day official discussions of the religious question, the attempt is here made to avoid the bitter partisanship which commonly attaches to these religious discussions.

While Whitehouse's book gives us a view of the problems of legislation, Glover's book presents a most typical example of abstract, theoretical British thinking. Everywhere in England one sees clear evidences that the practical training of teachers is a matter of apprenticeship. The training colleges and university departments are not homes for the cultivation of educational science any more than is the traditional American normal school. When, however, an English writer discusses education in a book he seems to betake himself into another world. He forgets all about the apprenticeship system of training teachers, he forgets children and other people, and writes with such extreme devotion to theory that an American reader has difficulty in understanding how he

came to regard his work as having any connection with practical life.

Mr. Glover has written in this book a very sketchy outline of the kind of psychology which is taught by Sully and Bain and Herbert Spencer. The book contains a few general illustrations, but practically nothing that would be of direct use to teachers. The discussion of the nervous system is reduced to the barest outline, and the nature of apperception is evidently taken up merely because of the traditional interests that education has always had in this concept. The book will be of very little use to the American teacher who is interested in psychology, but it is so typical of the whole English situation that one cannot take the book in hand without realizing that this is nothing more nor less than a perpetuation of the tradition which has grown up in English theoretical writing on psychology and educational topics.

CLASSROOM METHODS AND DEVICES

A Sixth-Grade English Unit

Search for a topic which would be of genuine interest to eleven- and twelve-year-old boys and girls, and which would, moreover, open to them a broader view of some of today's work in the world, led to the selection of the subject "Ships and Ship-building." The purpose of this article is to sketch the development of the topic as worked out with a group of sixth-grade children.

The children's own experiences with boats or ships of any kind were utilized to introduce the topic. These stories were told orally to the class. The variety of experiences was surprising, and interest increased steadily as the stories multiplied. Use of the suspense element in interesting others and clever selection of titles were two of the several good points discovered by the children in the following accounts.

A Vessel in Distress

One evening at dusk, on our way home from Europe, the look-out reported that he had seen sky rockets in the distance signifying distress. According to the rules of the sea, the captain was compelled to find out the trouble and, if necessary, send help. He changed the course of his vessel toward the sky-rockets. After two hours we sighted the vessel. The captain of our ship tried to speak to the vessel through a megaphone, but they failed to hear us on account of the severe storm which had been raging for two days. Six men then volunteered to go over to them in a life-boat. The sea was so rough that it took them over half an hour to lower the boat. It was now dark and very soon the little boat was out of sight. For two hours we waited. Their return was greeted by cheers from the passengers. After being taken aboard, they reported that the vessel was a tramp steamer bound for Holland with a cargo of oil from South America. She had lost her propeller and wished to be towed. As we were going in the opposite direction, they had to wait for another vessel.

A New Kind of Sail-Boat

When my father was a little boy, he always spent the winter in New Orleans and the summer in Kentucky. One autumn when the family were going up the Mississippi River, a very funny thing happened. Father was on the top deck looking up the river when, all of a sudden, he heard a scream from

the nurse who was standing near him. A few minutes before, she had been holding a chubby baby in her arms. Now she was empty-handed. She stood there screaming and pointing to the water. There was the baby floating along the river. The baby's dress had a very long, full skirt, and a strong gust of wind had carried the baby from the nurse's arms to the water. There the skirt, being full of air, helped the child to float gently along until it was rescued. The baby had enjoyed the ride, and was none the worse for its wetting.

SAND FROM THE BOTTOM OF THE SEA

One day while crossing the Atlantic Ocean, I was up early enough to see them take the soundings. They do this to find out how deep the water is. To take the soundings, they used a long rope with a tape measure running the whole length of it, and a heavy weight on the end, surrounded by a thick layer of fat. This sank quickly to the bottom of the ocean as they let out the rope. Then the captain gave an order to haul it up, and many sailors tugged on the rope until the weight came into sight. The fat was now covered with a grayish layer of tiny grains of sand. The captain, when I asked him for it, gave me some of the sand, so that I could bring home with me a bottle of sand from the bottom of the sea.

In these reports, mention had been made of boats and ships as widely different as tugs, colliers, yachts, schooners, ocean liners, war ships, and canoes. Distinctions were discussed orally, and many of the children started scrap books containing pictures of as many as possible of the kinds discussed. Though the subject of ship-building had at no time been mentioned to the children, pictures of ships in construction soon began to appear in these scrap books—particularly in those of the boys. "Building a Three Decker"; "The 'Rivadavia,' Nearing Completion at Quincy, Mass."; "The Latest Work in Shipbuilding—The White Star Line's New 'Brittanic'"; and "Turbines Being Hoisted on Board the 'Aquitania,' now building at Clydebank" were titles of some of the illustrations secured.

To all the class, excepting two boys particularly interested in hydroplanes and hydro-aeroplanes, the great ocean liners seemed more attractive than any other vessels. This preference directed the course of procedure and led the class to write letters to the best known ocean steamship lines for further information. Each child chose the company to which he or she wished to write. Many asked permission to write to several. The substance of all the letters was much alike. The two below give some idea of the

individuality of expression exhibited. Answers were awaited with much interest.

CHICAGO, ILLINOIS,
Jan. 19, 1914

Hamburg American S. S. Co.,
New York, N.Y.

DEAR SIRS: I am finding out all I can about ocean liners, and am collecting pictures of them. Would you be kind enough to send me some pictures of your largest steamships and information concerning them and the routes they sail?

Yours truly,

_____ _____

——— K. AVE.
CHICAGO, ILL.

CHICAGO, ILL.,
Jan. 21, 1914

Cunard S. S. Co.,
New York, N.Y.

DEAR SIRS: Will you please answer for me the following questions concerning your steamships? What are the names of your largest boats? How large are they? Where and how are they built? What are your principal sailing routes? I shall be grateful for any pamphlets about them or pictures of them which you can send me.

Yours truly,

_____ _ _____

——— W. AVE.
CHICAGO, ILL.

While awaiting the replies to these letters, the class read the stories of the two famous prehistoric boats, the Ark and the "Argo." The biblical version of the Ark story was read, talked over, and re-read. Additional motivation for expressive reading of the passage lay in the knowledge that one child was to be chosen by the others to read the story in the morning exercise on ships that the class had been asked to give before other classes.

After the reading of the story, opportunity was given for two modes of self-expression. First, the written story of the Ark was reproduced in the children's own language. Then a crayon drawing of the Ark, as the child conceived it, was made. Owing to individual differences, the amount of biblical diction which was carried over into the children's accounts varied widely. The two copied below were chosen to illustrate this particular point.

NOAH'S ARK

The Lord requested Noah to build an Ark, so that when the flood came, he could preserve himself, his family, and the various animals. It was built of gopher wood, which we now call conifer cypress. The Ark was five hundred twenty-five feet long, eighty-four feet wide, and fifty-two feet high. It was not built for travel, and merely floated about until the flood subsided.

NOAH'S ARK

Many, many years ago, not long after the time of Adam and Eve, the Lord saw that there was nothing but evil in the mind of man whom he had created. So God determined to send a flood and wash the face of the earth bare from man. In this dreadful time, there was but one patriarch who won favor in the sight of the Lord. This was Noah. He only had not forsaken the Lord, and therefore God came unto him saying that a great flood would drown everyone on earth. But God bade Noah build an Ark, which was to be three hundred cubits long, fifty cubits wide, and thirty cubits high. The Ark was to have a window, a door, and three stories. Noah was to go into the Ark when the waters began to rise and with him he was to take his wife, his sons, and his sons' wives. God said he was also to take a male and female of every animal, bird, and creeping thing on earth. And just what the Lord commanded him to do, Noah did.

In the working out of the crayon drawings in the art period, questions such as those of proportion, of coloring, of placing of door and window, of showing three stories, and of the general shape of the boat presented individual problems to be met. The decision was unanimous and no less amusing that no steering gear was necessary because Noah desired only to float. The finished drawings were most interesting.

The "Argo" story was similarly treated. The sources used for this tale were Lowell's *Jason's Quest* and Baldwin's *The Golden Fleece*. Since only one copy of each was available, each child read in turn to the rest of the class. English periods did not come often enough to satisfy their desire for the completion of this story, and the class voluntarily held after-school sessions to hear it finished. The little accounts reproduced after just the one hearing were unusually good. Some chose to write of the building, some of the launching, and some of the return of the famous craft.

THE BUILDING OF THE "ARGO"

Jason walked through the land crying, "Who will build me a ship large enough for fifty men?" Men laughed at the idea of so huge a boat, but at

last a man called Argus volunteered to try. One day as he was at work among the timbers on the beach, a beautiful woman came toward him. As she approached him she asked, "What kind of a thing is this?"

"I am trying to build a ship," he answered humbly.

She told him that so poor a craft could never sail the seas and the next moment disappeared. But in her place there stood Athena, the goddess of wisdom. She showed him how to use strong cedars for his hull and for the prow she bade him secure a bough from the talking oaks of Dodona. Before long, with such help, he completed a sea-worthy vessel, wonderful to behold, and after its builder it was named the "Argo."

The Launching of the "Argo"

When the "Argo" was well finished with its head figure of sacred oak, the time came to launch it. With all their might men pushed, but the boat would not stir. Then Hercules was called. With all his mighty strength he pushed, but the ship was not to be moved. Pretending that he had not even tried, he bade his comrades push hard with him. In this way they slightly shoved the stubborn ship, but the men now said their strength was giving out. As they paused for breath, they were astonished by exquisitely soft strains of music. Its sounds stopped the warriors in wonder and suddenly the boat began to move gently and swiftly to the sea. Then they saw that a young bard stood at the prow of the boat playing sweetly on his lyre. They clambered quickly up her sides and were off. Orpheus had charmed the "Argo" with his heavenly music.

The Return of the "Argo"

When the "Argo" sailed into the harbor with Jason and the other heroes it was not the shining craft which had started out, but an old storm-battered, weather-beaten vessel. The face on the prow was bent. The sails were torn. The hull was gray. Nobody knew it was the "Argo."

By the time the "Argo" stories were finished a mass of material (truly alarming in quantity from the teacher's standpoint) had been accumulated from the steamship companies. Several very large pictures had been sent, and pamphlets and small pictures of every description. More delightful to the children than anything else, however, were the personal letters which they received answering some of their many questions. Much clamoring to be first to tell about and show their treasures ensued. The coveted permission was given to the one who showed the best simple outline of facts to be presented. A class hour was spent discussing organization and selection of material. When two or three children wanted to talk about ships of the same company, they decided

among themselves upon the division of the subject to be made. For example, of the three who wrote to the Hamburg American Line, one talked upon the "Imperator," another upon the trip of the "Cleveland" around the world in 1915, and a third upon the "Vaterland"—at that time still in process of construction at the great shipyard of Blohm & Voss, Germany. Several of the children laboriously made extra diagrams and maps of routes to help them picture effectively the exceedingly great size and merit of their respective ships. A mere skeleton of one of these oral reports, taken down by a student assistant as the child talked, is included below.

CUNARDERS

This large picture is of the "Lusitania." This ship is 790 ft. long and has a tonnage of 32,000 tons. If you look down to the water from this deck, you are looking down a distance of 80 feet to the water. Here is a diagram I have made of the Auditorium Hotel. If the "Lusitania" were put down Michigan Avenue in front of the Auditorium, it would reach this far. If you put one of these funnels down on the street, two street cars could run through it at once on double tracks the usual distance apart.

The "Lusitania" has a sister ship, the "Mauretania." They are both fast ships and sail weekly between New York and Liverpool. The "Lusitania" was built on the Clyde, Scotland, and the "Mauretania" on the Tyne, England.

The Cunard Company are now building the "Aquitania" and "Transylvania." The "Aquitania" is already launched. The hull of the "Transylvania" is just being built. This picture shows the fourth funnel as it is being put into place on the "Aquitania." These new boats will be the finest and largest on the line. The names of all the large Cunarders end with "ania."

Needless to say, all this information was divulged to the rest of the class with no small degree of pride on the part of the possessor. As reports multiplied, the children made it a point to learn the names and sailing routes of the great liners, not only of their own, but of all the companies discussed. Then they began, also quite of their own accord, to bring in reports from the daily papers as to the whereabouts of the various ships that day. Atlases were consulted more eagerly than in the geography class. That the "Cleveland" had arrived in Bombay late the preceding night was a subject of before-school conversation.

Perhaps the most interesting report made was upon the French line. This told how all these liners could be converted into war vessels by the French government, and how they were built at the St. Nazaire yards, although they could be built much more cheaply in England, and why these things were true.

As soon as a child had given the report on his material a subject for later report was chosen. This was to be based upon reading done in the library. Unless special request for a different kind of a topic was made, the assigned reading was upon some of the great ships of history. All read and illustrated a chapter upon the evolution of a boat. Individual instruction was given in the use of the card catalogue in finding the books referred to. *The American Sailor*, *The Boy's Wonder Book of Ships*, and E. Keble Chatterton's two volumes were found particularly adapted to children's use. Some of the topics assigned were: "The Norse Boat of Gokstad"; "The Golden Hind"; "The Bucentaur"; "The Great Harry"; "The Blessing of the Bay"; "The Clermont"; "The Great Western"; "The Constitution," etc.

"The Merrimac and the Monitor" was written up by one lad upon his own request.

The children, already not a little familiar from their various reports with the chief shipbuilding regions of the world, and with the parts of a great ship, were now quite ready to study the "Shipbuilding" chapter in Allen's *Industrial Europe*. The personal touch—the picture of the ship-builder as well as of ship-building—was supplied by the teacher's stories of Peter the Great, Phineas Pett, Robert Fulton, and other great ship-builders. Many shipbuilding articles from magazines were brought in by the class, the best of which was from the *Scientific American* of January 31, 1914. It was entitled "The Most Modern Ship-building Plant in the World." Early in the discussion of building ships of iron and of steel, the children were puzzled as to how an iron ship could float. The following is one boy's volunteered effort to explain.

WHY AN IRON OR STEEL SHIP CAN FLOAT

If you put a piece of wood on the water in a basin, like this, you see it floats. We found out in our study of primitive boats that logs floating down stream gave early suggestions of boats. Therefore people were not surprised

when a boat built of wood floated. But if you put a lump of iron in the water in the basin, like this, you see it instantly sinks. So when people first heard of steel ships, they were sure they would sink. I am going to try to show you why they do not. When I put this little iron cup in the water, you see it floats. The secret is in its shape. You see this is not a solid piece of iron but a shell of iron filled with air. The air and the iron together are light enough to be held up on top of the water just as the wood was. The cup sinks to within half an inch of the brim. Then we know that it is lighter than an amount of water just the size of the cup would be. Steel ships are hollow like the cup.

The class next read together Longfellow's "The Building of the Ship" and liked it. Modern ship-building methods were often compared to those of the "master." The parts of a ship named presented nothing strange. The thought-content was easily mastered.

During the study of the poem, five or ten minutes each day were taken up with the reports based on the library work. Some of these were oral and some written. The following one was written.

THE "BUCENTAUR"

Venice is built on islands, with the sea upon all sides. For this reason, and because she had obtained most of her wealth by commerce, she grew to love the sea. Venice felt that the sea loved her, too, and would protect her. From this idea there came to be held a beautiful ceremony called "The Marriage of Venice and the Sea."

Once every year the Doge, or chief ruler of Venice, accompanied by the priests and many attendants, sailed out into the harbor to perform the marriage service. It was the most important of all the holidays of the Venetians and the harbor was gay with throngs of people and bright decorations.

The "Bucentaur," the boat in which the Doge sat, was a beautiful boat. It had two floors or decks. Upon the lower deck sat the men who rowed the boat. The upper deck was covered with velvet and adorned with much gold braid and many tassels. At the stern was a small window from which the Doge cast a ring into the sea, while the priest solemnly read the words of the service.

For almost four centuries this beautiful ceremony was performed every year and many different boats were made to be used for it. Always, however, the boats were named the "Bucentaur."

As a final step, the class wrote original poems about any phase of ships or ship-building that they chose. The results exceeded expectations, especially in the distinctly ethical content embodied in such an attempt as the following. Such a "moral" had never in any way been pointed out or mentioned in class.

For us the steel is glowing,
For us the ribs are bent,
For us are hammers plying,
For us are labors spent.

The builder in his office
With master mind does plan
But every little labor counts
Down to the lowest man.

Many rather long rhymed stories of ships and wrecks and building were composed, but more pleasing than any of them was this little four-line production.

If you were but a fairy,
And could grant me wishes three,
I'd choose to be an architect
Of ships that sail the sea.

Last of all came Kipling's story of "The Ship That Found Herself." The children, already familiar with his "007," were rejoiced to know that he had written a ship story too. It was read to them by the teacher during the last two days of the twelve-weeks' period over which this unit of English work had extended. They seemed to enjoy every word of it.

When the unit of work was over, the children realized only that they had found out some very interesting things about ships and ship-building, and that they wanted and intended to know more. The adult onlooker knew, however, that training in oral composition, in writing stories, both reproduced and original, in oral reading, in proper use of a library, in letter-writing, in spelling and dictionary work, and in outlining and organizing of material had been given them as well as a knowledge of some of the world's mightiest carriers, and a glimpse of one of her greatest industries.

EDITH PUTNAM PARKER
UNIVERSITY OF CHICAGO ELEMENTARY SCHOOL

DRILL IN MULTIPLICATION

I have found it advantageous to substitute for drill in the multiplication tables a series of problems. These problems can be prepared rapidly and in great numbers in the following way. The

method also has the advantage of giving complete drill in all the combinations.

The selection of the multiplier is dictated by the steps previously developed. Two's and three's having been developed, the multiplier may be 2, or 3, or, if two-place multiplying be known, 23. Four's having been developed, and multiplication by three places known, the multiplier can be 234, or 432, or 423, or 324. A multiplicand is then selected as follows: 369—. Successively around the school I give out to replace the dash the figures 1, 2, 3, 4, etc., up to 9. The first child's multiplicand, then will read 3691; the second child's, 3692; the third child's, 3693, etc., a condition that alters the result of each child's example and so puts each child on his own resources. His neighbor cannot help him and he finds the necessity of doing his own work.

Quickly working the first example, I add the multiplier to the product and get the answer to the second example. Adding the multiplier to that answer gives the answer to the third example, and so on.

This is the device partially worked out:

```
  3691
   432
------
  7382
 11073
14764
------
1594512   First child's answer.
   432
------
1594944   Second child's answer.
   432
------
1595376   Third child's answer, and so on.
```

The facility with which each child can be given a separate example and be immediately examined is the feature that recommends the device for at least examination.

JAMES O. LUCAS

WASHINGTON, D.C.

A COURSE IN AGRICULTURE

Many schools are introducing, at the present time, instruction in agriculture. The course of study in this subject is sufficiently experimental to justify the distribution of information regarding

possible lines of work which can be taken up in this course. The following statement issued in Springfield, Missouri, gives so complete an account of a possible course in agriculture that it is here reproduced in full.

E. A. Cockefair, Greene County farm adviser in co-operation with County Superintendent J. R. Reberts, has written a course of study which includes each month of the year. It will be printed in pamphlet form and distributed to students.

Sowing crimson clover, sweet clover, winter oats, alfalfa, and vetch should be done the first two weeks of September. Plots of ground on the school grounds, four feet square, should be dug for these experimental beds. Winter wheat, rye, Durum wheat, speltz, timothy, and orchard grass can be sown the third and fourth weeks in September. These are a few of the facts the children will learn. For advanced pupils, uses of fertilizers, including nitrates, acid phosphates, ground rock, potash, ashes, and lime, will be studied. Demonstrations of treatment of wheat for smut are suggested. A bushel of wheat can be taken to school, placed in a loose burlap bag, and immersed for ten or fifteen minutes in a solution in a barrel or tub, then spread to dry.

Study of acreage and yield of hay, grain, and pasture crops for the school district, with location of fields and reports of yields, set out on maps of the district, is part of the September course. These maps afterward can be displayed at the annual county show in December contests.

October is the month of seed-corn selection. Visits of the students to fields, with lessons in marking the stalks carrying the best ears will be made on Friday of the last quarter. Some of the older students may be interested in obtaining fair exhibits.

Corn-judging from samples furnished by pupils will be part of the studies in November. Planting of tulip bulbs will be taught. The older pupils and high-school students will be instructed in a tree nursery. A strip of ground twenty feet long will be prepared, and seeds from the wild cherry, walnut, butternut, hickory, pecan, chestnut, white oak, black oak, and ash of the forest trees, and apple, plum, apricot, and peach of the fruit trees will be planted. Girls of the school can interest themselves in planting roses, lilacs, barberry, and other shrubs.

Stock-judging is scheduled for December. A horse and a cow will be taken to the grounds for expert judging as to points. The children will go to a neighboring pen to judge swine. Purchase of a filt and care of it and its increase until January, 1916, is suggested for the boys. Girls will be taught to interest themselves in cows and poultry. Stock-feeding will be a theme for January lessons and visits will be made to pens. Reports on feeding balanced rations will be made to the schools. Statistics as to number of head of stock produced the last year, value and average price per head, must be recorded. Milk records for cow-testing will be taken from home by pupils.

The first pruning lesson will be given in February. Pupils will be asked to practice on grapevines and apple and peach trees at home and to submit reports. Examination of seeds for impurities will be a part of the study for that month.

Seed-testing of oats and treatment of potatoes for scab will be done in March. A contest in growing potatoes on vacant lots will probably be started and prizes given for the best crop.

Planting flowers and improvement of school yards will be done in April. Stimulation of the growing of prize acres of corn for the annual county contest will be featured this month. Growing tomatoes, with lessons on canning, for the girls, also will be featured. Popcorn- and peanut- growing will be taught. Adviser Cockefair believes the parents and pupils should join in Arbor Day exercises, planting trees and shrubbery.

Summer cultivation and care of live stock on summer pasture will be included in the May studies. Instruction on siloes and cost of their construction, and methods of combating drouth and maintaining feed and water for live stock, will close the year's studies.

Penmanship Recommendations

New York City is about to improve the penmanship of its school children. It would be interesting to record the number of new systems of writing that have been introduced in American schools in recent years. The explanation of these frequent experiments in penmanship is undoubtedly to be found in the fact that penmanship furnishes one of the most concrete examples of the success or failure of teaching. Since the problem is one which commands the attention of many teachers in different parts of the country, it is interesting to note the recommendations which have been officially sent out as the basis for the new system. The *Globe* of New York City summarizes on August 24 the official pamphlet which is to go to teachers as follows:

Materials and Position

a) Pupils should be trained to be discriminating in their choice of writing materials. The best results can be secured only by the use of proper equipment.

b) Penholders with metal tips should be avoided. Pupils using such holders are likely to grip them too firmly, making it impossible to relax the muscles sufficiently to develop freedom of movement.

c) Pens should be of the style commonly called "business pens," with a medium point and slight flexibility.

d) Ink should be of a quality that flows freely and makes a strong, clear line when first used.

e) Paper should be of a quality that will present a smooth writing surface and of a texture that will not permit ink to pass through it.

f) Charts, showing the approved letter-forms, should be placed in each room, in order that a distinct image of each letter shall be indelibly impressed upon the mind.

g) Each pupil should be provided with an appropriate copy showing the exact size of the writing required.

Proper position at the desk should be insisted upon at all times by the teachers to obtain the best possible results. The rules for position are as follows:

a) What is known as the "front position" at the desk should be taken. If this is impossible, the pupil may sit with the right side toward the desk, but it should be avoided, if possible.

b) The feet should rest upon the floor, the body inclining slightly forward at the hips, holding the back straight.

c) The hands should rest in a comfortable position, with the wrists turned slightly to the right.

d) The penholder should be held against the second finger, with the first finger on top and the thumb well curved pressing the penholder against the two fingers.

e) The point of the pen should be at least one inch from the end of the first finger. The top of the penholder should be held near the large knuckle of the first finger.

f) The paper should lie so that the right arm crosses the ruled lines at right angles.

The paper should be so placed that it will be convenient to swing the pen along the writing line, using the muscular rest as a pivotal point.

MOVEMENT

a) Movement drills are logically divided into general and specific; the general movement drills being of a nature to develop effective power in action, while the specific drills lead directly to letter-forms. Proper preparation for the presentation of any letter-form implies the use of both classes of drills. The rate of speed used in movement drills should be the same as that used in actual writing. Pupils should not be given the impression that movement drills should be executed rapidly, and that writing should be done slowly.

b) Each lesson should be introduced by a brief drill upon the oval- and straight-line exercises, which should be followed by practice upon a specific movement drill preparatory to the lesson proper.

c) Movement drills may be considered to be of four forms:

1. The general movement drill, such as the oval- and straight-line exercises.
2. A letter used as a drill, such as a group of small *o*'s joined.

3. A word movement drill, such as the word "mine" being repeated several times.

4. A sentence movement drill, such as "Nine men are now mining in a new mine."

d) While the use of muscular movement is paramount, drill on movement exercises alone must not be carried to an extreme.

e) The requirements of motivation demand that the usefulness of each movement exercise be shown, whether it be general or specific.

f) As the writing muscles are located in the arm, shoulder, and back, the exercises at first should be very large. As control is developed, the size may be diminished until it reaches the letter size. No attempt should be made to apply muscular movement to a letter-form until the movement drill from which the letter is generated has been mastered.

g) Little time need be devoted to the larger movement drills after the learner has acquired sufficient skill to make the smaller ones, as skill in executing the one-spaced or half-spaced movement exercises implies skill in executing the larger ones.

h) Until pupils have acquired a fair degree of control and a light, elastic touch, oval- and straight-line exercises should not be made very compact. The rule should be to let each down-stroke pass just to the right of a preceding down-stroke. The rate of speed on the simple drills should be about three down-strokes per second.

i) The amount of time devoted to movement drills exclusively in each lesson will depend upon the progress made by the class. Until a satisfactory degree of freedom and ease has been developed a large portion of the time should be used for movement drills exclusively.

LETTER-FORMS

a) While legibility is generally of first importance, yet greater success will come from the writing drills if the teacher develops: first, ease in writing; second, rapidity; and third, legibility.

b) Whenever legibility is represented as the chief essential, failure is sure to result.

c) Letter-forms acquired slowly lose their identity under speed pressure, scribbling being the invariable result.

THE RELATION BETWEEN THE PHYSICAL AND THE HEALTH CONDITIONS OF CHILDREN AND THEIR SCHOOL PROGRESS

W. C. REAVIS
St. Louis, Missouri

The question of the correlation between the physical and health conditions of school children and their mental progress is one that has received a great deal of attention from educators and the medical profession during the past twenty years. It has been the subject of numerous investigations and much speculation, but no altogether satisfactory answer has yet been given. Some have maintained that there is a positive correlation between mental precocity and good physical development and condition, and between dulness and poor physical condition; while others have declared that the relation in the one case is inverse, and in the other slight, if there is any at all. However, the data so far gathered do not warrant the acceptance of a causal relationship between bodily and mental defectiveness, although they do clearly justify the belief that bodily condition is an important means to mental welfare, and that attention given to the investigation and treatment of physical conditions of children often results in the elimination of wasted effort in education and in the improvement of school work.

The following study makes no attempt to prove or disprove a theory, or to establish a mathematical correlation between physical defects and school progress. It merely presents a statement of the relationship that was found to exist in a certain city school, (1) between the physical condition of the children and their mental progress (*a*) as measured by standing in class, (*b*) as measured by completed work; (2) between the nutritional and developmental conditions of the children and their standing in class; (3) between physical defects, attendance, and class standing; (4) between the social status of the child and each of the above topics.

In the first place, a careful medical examination of all the children of the school was made by a well-qualified school physician. The following facts were recorded: number and condition of carious teeth; condition of eyes and vision; throat obstructions, such as enlarged tonsils, adenoids, and nasal abnormalities which obstructed respiration; ear defects; and general bodily condition.

Secondly, each teacher was asked to submit a list of her pupils by grades, arranged in the order of their ability to do the regular work of the class. These lists were then divided into equal tertiles, and all of the first tertiles of the different lists were grouped, as were the second and third. These are designated throughout the study as Rank I, II, and III. Thus, the group marked I was supposed to contain the best third of each class, and likewise the groups marked II and III the middle and poorest thirds respectively. This method of classification is certainly more reliable than either general averages based on the results of examinations, or the arbitrary judgments of teachers on such criteria as bright, average, and dull. Furthermore, as the lists were made out near the end of the school year, the chances of a reliable judgment of the ability of each pupil were increased, as pupils who were members of the school at that time should have been doing either their best or poorest work.

PHYSICAL DEFECTS AND CLASS STANDING

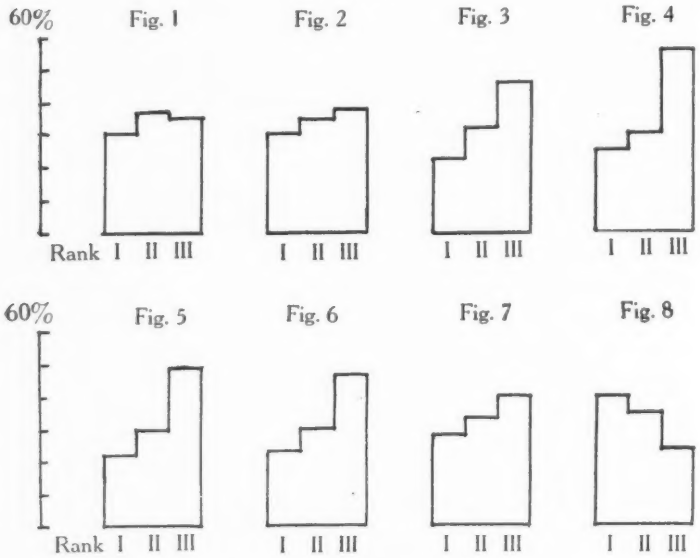
Chart I that follows was compiled from data gathered from 122 children having dental caries (Fig. 1); from 181 children who had other defects in addition to decayed teeth (Fig. 2); from 35 children who had throat obstructions only (Fig. 3); from 64 children who had other defects plus those of the throat (Fig. 4); from 56 children who had defective vision only (Fig. 5); from 105 children who had other defects in addition to those of vision (Fig. 6); from a total of 256 children having the different kinds of defects (Fig. 7); and from 172 who appeared to be physically normal, i.e., they had no evident physical defects (Fig. 8).

It was my intention to construct figures showing the distribution of pupils having carious teeth and defective vision, carious teeth and throat obstructions, and defective vision and throat obstructions; but the cases of such combinations were too few in

number. Such a series would have shown clearly and completely the cumulative effect of the different physical defects on class standing and would have made possible a more minute analysis and a more thorough comparison than can be made from Chart I.

An examination of the first seven figures of Chart I shows a consistent relationship between the different physical defects and

CHART I



The abscissa shows the first, second, and third tertiles of the classes; and the ordinate the percentages of children. Fig. 1 shows that 30 per cent of 122 children having defective teeth belonged in the first third of the classes of the different grades, 36 per cent in the second third, and 34 per cent in the lowest third.

class standing. The uniformity of the skew in the curves toward the foot of the class rather than the exact percentages makes the relation significant. It becomes even more significant when compared with Fig. 8, which shows the distribution of the children who were considered normal physically. In Fig. 8, the skew is toward the head of the class and is almost identical in degree with

that of Fig. 7, which shows the distribution according to class standing of all the children who had physical defects.

PHYSICAL DEFECTS AND COMPLETED WORK

The bearing of physical defects on school progress as measured by completed work is a problem with which it is more difficult to deal, especially with any degree of accuracy. This is self-evident to those who know the extent to which promotion in our schools is influenced and controlled by administrative problems. As a result the general statistics of promotion are unreliable when dealt with in mass, regardless of the facts which determine their validity. As a matter of fact the only statistics worth considering in this connection are those in which the personal record of each child considered is known by the statistician.

The school in which these data were gathered is a fourteen-room, eight-grade elementary school located in a fairly populous district of people of moderate means. It is well adapted for a study of this kind, as a well-established precedent for individual promotion prevails among the teachers. The unit of work is so small (four quarters of ten weeks each) that retardation is minimized, and the classes as a rule are not overcrowded. However, the difficulty lies in the fact that it was impossible to secure either a large number of records, or those covering more than a single year's work.

In Chart II that follows, the abscissa shows the number of quarters of work completed during the year by 172 pupils who were considered normal physically (Fig. 1), and by 278 pupils who had physical defects (Fig. 2). The ordinate shows the distribution of pupils in percentages.

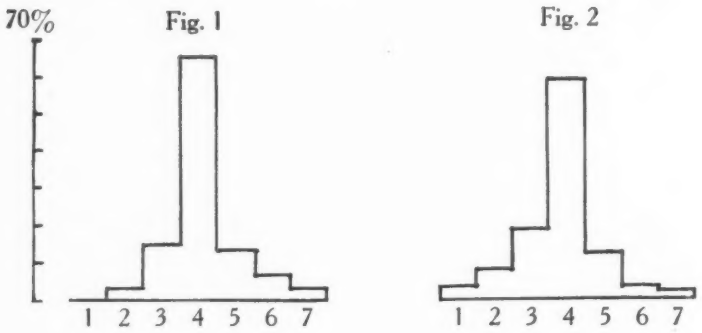
The curves of Chart II show, as do those of Chart I, that the normal children excel those having physical defects, although the advantage in completed work is not so marked as in class standing. The height of the apex of the curve is not so significant, as it is determined largely by the regular class promotions; but the distribution on either side showing gain or loss in finished work, by individuals, in comparison with the class, is important; for it is the measure of individual progress. Here, on the lower side we find

18.5 per cent of the normal children (Fig. 1) against 27.5 per cent of the children with physical defects (Fig. 2), while on the higher side we see 19.5 per cent of the normals (Fig. 1) against 16.5 per cent of the children who had defects (Fig. 2).

NUTRITION, DEVELOPMENT, AND CLASS STANDING

A second examination of all the children was made by the school physician, in which special attention was given to nutrition and development. In grading nutrition, the color of the visible mucous

CHART II



membranes, conditions of the skin, muscular tone, and carriage of the body were carefully observed; and in grading development, approximate height and weight for age, muscular and adipose proportion, formation of mouth, and general contour of the body received attention. As we had no scale by which to be guided in this undertaking, it was agreed to rank all pupils who appeared to grade above 85 per cent on the above points as first class, all between 85 per cent and 70 per cent as second class, and those below 70 per cent as third class. In order to have a check on the physician's grading, we compared his judgments with the results of a blood test that had been made with the Haemoglobin Scale, in the case of 15 pupils. The judgments conformed in each case; 8 who had been classed I by the physician tested above 85 per cent on the Haemoglobin Scale; 6 who had been classed II graded

between 85 per cent and 70 per cent, and 1 who had been rated III graded below 70 per cent.

In compiling the following Chart III, it was found that the cases marked below 70 per cent in either nutrition or development were so few in number that it was thought best to drop them and consider only those graded I and II.

A comparison of Figs. 1 and 2 of Chart III shows that the children marked I in nutrition stand somewhat higher in the class than those marked II; and a comparison of Figs. 3 and 4 show

CHART III

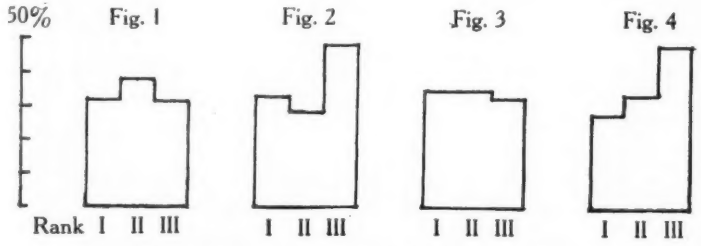


Fig. 1 shows class standing of 297 pupils graded 1 in nutrition
Fig. 2 shows class standing of 168 pupils graded 2 in nutrition
Fig. 3 shows class standing of 310 pupils graded 1 in development
Fig. 4 shows class standing of 155 pupils graded 2 in development

similar but more marked results in regard to development. The flattening of the curves in Figs. 1 and 3 seems to have been caused by the fact that the line of demarkation between the two classes in both nutrition and development was not properly drawn. Group I in nutrition contained 65 pupils that should have been in Group II, while Group I in development contained 77 that should have been classed with Group II. The probability is that this rearrangement would have increased the skew of the curves in Figs. 1 and 3 toward the head of the class, and would have decreased the skew in Figs. 2 and 4 toward the foot of the class.

In Table I (p. 102) which shows the distribution of the various groups of children distributed according to their percentage of attendance, two facts of considerable importance stand out:

(1) the correlation between good physical condition and a high percentage of attendance; (2) the bearing of attendance on class standing.

PHYSICAL DEFECTS, ATTENDANCE, AND CLASS STANDING

TABLE I

	Percentage										
	100–95	94–90	89–85	84–80	79–75	74–70	69–65	64–60	59–55	54 and Less	No. Cases
Normal children	31.2	24.0	15.0	9.1	4.5	5.2	4.5	2.6	1.3	2.6	154
Physically defective	24.5	26.8	13.8	10.4	8.9	5.7	4.6	1.1	0.0	4.2	261
Nutrition I	28.7	24.4	13.9	9.7	7.0	6.2	4.6	1.6	0.4	3.5	258
Nutrition II	24.2	28.0	14.6	10.2	7.6	6.6	6.6	1.9	0.6	3.8	157
Development I	27.8	22.2	14.8	10.4	8.5	6.3	4.8	1.5	0.4	3.3	270
Development II	25.7	32.6	13.2	8.3	4.8	4.2	4.2	2.1	0.7	4.2	144
Rank I in class	39.4	27.7	13.1	3.6	5.8	5.1	3.6	0.7	0.0	1.0	137
Rank II in class	25.5	28.5	15.3	12.4	8.0	2.9	2.2	1.5	1.5	2.2	137
Rank III in class	16.3	21.2	14.2	13.5	7.8	8.6	7.8	2.8	0.0	7.8	141

NOTE.—The percentage of attendance is based on the actual days attended out of a possible 200 days, the length of the school term.

The fact that 31.2 per cent of the normal children attained a percentage of 95 or above, against 25.4 per cent of the children who had physical defects is no statistical accident, as is likewise true of the children graded higher in nutrition and development. Physical defects and poor nutrition and development are conducive to intermittent absence which in the course of a school year is destructive to a high percentage of attendance.

The results of intermittent attendance may not be seen in the progress of a pupil from grade to grade, yet they are quite evident in the standing of the individual in class. This is clearly demonstrated by the percentages given above, in which 34.9 per cent of the pupils of Rank I in class have a percentage of attendance of 95 or more against 25.5 per cent of Rank II, and 16.3 per cent of Rank III. It is further demonstrated in the case of pupils attending 54 per cent or less of the time, where we find 7.8 per cent ranking III in class against 2.2 per cent ranking II, and 1 per cent ranking I.

These facts indicate a causal relationship between physical condition and attendance, and a close correlation between high standing in class and a high percentage of attendance. They offer ample justification for the existence in every modern school system of a competent attendance department and an active efficient department of hygiene.

SOCIAL STATUS AND EACH OF THE ABOVE TOPICS

The question now arises, Are physical condition and attendance independent factors in influencing school progress, or are they the result of some other influence, such as environment? The only data at hand in which an answer to this question might be found were the occupations of the parents. It was therefore decided to arrange this material in a similar way to that employed by Dr. Porter[1] in working out his conclusions regarding the correlation between the physical and mental attainments and the social status of the pupil, as determined by the occupation of the parent.

The parents were divided into two groups designated as (1) professional men and the mercantile class, and (2) manual tradesmen. It was found that there were 135 parents in the first group, and 280 in the second (including duplications where the parent had more than one child in the lists). The children of these parents were then distributed according to the parental occupation, class standing, and physical condition.

TABLE II

Parentage	Percentage		
	Rank I	Rank II	Rank III
Professional men and mercantile class....	44.7	27.7	27.6
Manual tradesmen.....	27.1	37.3	35.7

Table II, giving the distribution according to class standing of the children of the two groups, shows that parentage (in the sense of the home maintained by the men of different occupations) bears a relation to the character of the work done by the pupil in

[1] Porter, "Growth of Saint Louis School Children," *Transactions of the Academy of Science of Saint Louis*, Vol. VI.

school. This may be due to the attitude of the men of different vocations toward the content of our course of instruction in the public schools, or to reasons more closely related to the topics previously considered. The latter point calls for further analysis, on account of the close similarity in distribution between the above groups, and those of the normal and physically defective children respectively. See Figs. 7 and 8 of Chart I.

By separating the normal children and the physically defective according to parentage, and then distributing according to class standing, we see that physical conditions still appear to influence class standing regardless of the supplementary or counter influences that may result from different home conditions. However, the influences of the homes do appear to accentuate in their respective direction the correlation between physical condition and standing in class. See Tables III and IV.

TABLE III

NORMAL CHILDREN

PARENTAGE	PERCENTAGE		
	Rank I	Rank II	Rank III
Professional and mercantile class.....	58.7	19.6	21.7
Manual tradesmen.....	37.7	45.9	16.4

NOTE.—In the group of normal children, 48 came from homes of the professional and mercantile class, and 98 from the homes of manual tradesmen.

TABLE IV

CHILDREN WITH PHYSICAL DEFECTS

PARENTAGE	PERCENTAGE		
	Rank I	Rank II	Rank III
Professional and mercantile class.....	37.5	32.9	29.6
Manual tradesmen.....	21.4	32.4	46.4

NOTE.—Of the children who had physical defects, 88 came from the homes of the professional and mercantile class, and 182 from the homes of manual tradesmen.

The children of the two classes of parentage were next distributed according to their percentage of attendance, and arranged in Table V. By comparing this distribution with that of the

normal and physically defective groups in Table I, we see that the different homes assert their influence on attendance, although in no more marked degree than on standing in class.

TABLE V

PERCENTAGE OF ATTENDANCE

PARENTAGE	PERCENTAGE									
	100–95	94–90	89–85	84–80	79–75	74–70	69–65	64–60	59–55	54 and Less
Professional and mercantile class	37.0	26.0	12.6	6.7	6.6	6.0	1.5	7.0	0.0	2.1
Manual tradesmen	22.2	25.8	14.6	11.4	7.5	5.3	6.1	2.1	0.7	4.3

These data clearly show that physical condition, attendance, and home environment are as a rule related factors, and that they seldom act as units on the work of the children in school. Because of this, a correlation that would even approach mathematical accuracy would be very difficult to establish, as in most cases it would be impossible to isolate the different influences in their bearing on school progress. However, the study does point out that the correlation between any of the factors and the character of work done in school is positive, and as such merits the careful consideration of administrators, supervisors, and teachers.

A PLAN FOR TRAINING TEACHERS WHILE IN SERVICE

W. S. DAKIN
Inspector of Connecticut State Supervision System

The training of teachers for rural schools has become a vexing problem. Many states are attempting to solve it by the establishment of county training classes and special courses in high schools. Teachers prepared in these ways, however, must lack the inspiration which comes from attendance at a good normal school, and they can have but few opportunities to secure practice.

A unique system for training teachers while in service has been developed in the country schools of Connecticut. All new teachers are considered as apprentices. Their apprenticeship has been organized and made to count toward sound training much as is the practice in many large industrial concerns of today. Only in this way can adequate practice be secured. The adjustment between theory and practice can also be kept reasonably constant.

By a law passed some years ago, towns having fewer than twenty teachers may secure on application to the state board of education the services of a supervisor to direct their schools. The supervisors assigned to this duty are engaged and paid by the state. According to the terms of their contract they must give two hours of instruction each month to all teachers in their district and must visit all schools at least twice during the same period. Although a supervisor may be assigned to the management of schools in several small towns, the total number of teachers in his territory is seldom allowed to exceed thirty-five, in order that he may have ample time to make the necessary visits to schools and meet with the teachers of each town monthly.

A certain amount of training is gained by teachers under any system of careful supervision, but in order that their development may be made surer there must be opportunities for the observation of good teaching as well as for practice. To supply this need a law was passed by the last legislature providing for the establish-

ment of model schools in the small towns to be used as adjuncts to the system of training through supervision outlined above. A copy of this law follows.

TRAINING OF TEACHERS

CHAPTER 277

SECTION 1. One school in each town having twenty teachers or less may be organized as a model school for observation and instruction of the training class conducted by the supervisor.

SEC. 2. The state board of education may make application to the comptroller for an order on the treasurer for a sum not exceeding three dollars a week for each teacher in such model schools. No application shall be made to the comptroller under the provisions of this act unless the town in which said model school is located shall pay to the teacher of the model school a wage of not less than ten dollars a week or not less than the wage which was paid for teaching in said school during the previous year.

The assistance thus offered makes possible the placing of a strong teacher in every small town. The use of model schools for observation purposes enables young teachers in the most remote rural districts to see excellent teaching and through imitation acquire correct methods in their own work.

The approval of a school as a model is made only after a careful inspection by an agent of the state board of education. Even after approval the school is visited at intervals by an inspector to note its use for training purposes as well as to see that the desired standards of teaching are being maintained. The requirements for approval of a school as a model are here given:

The rural model school should be a one-room school in a situation accessible to all teachers of the town.

The building must be in good repair with sufficient blackboard space.

There must be ample equipment of aids to teaching, including a hektograph and a complete set of wall maps.

There must be a suitable selection of supplementary reading—at least fifteen sets.

There should be not less than fifteen pupils registered and five grades represented to include one first grade and at least one grade above the fifth.

The teacher must be able to secure results with well-defined and approved methods.

She must have a good program and keep a book of lesson plans.

She must prepare in some detail one model lesson outline each week for the instruction of visiting teachers.

She is to consider herself as an assistant to the supervisor and be prepared at all times to consult with him relative to the needs of teachers sent to observe her work.

During the present year forty-two towns have applied for the establishment of model schools. Twenty-five schools have been approved thus far. The schools already approved serve a territory employing 227 teachers, all of whom have enjoyed the benefits of observation in them and conferences with their teachers.

Some suggestions issued for the guidance of supervisors in the use of model schools are given below. New plans are being worked out continually, and it is hoped that still wider possibilities for the use of these schools will be developed the coming year when the system has become more widely established.

The supervisor shall interpret the course of study and determine the methods to be used in the school.

He shall confer frequently with the model-school teacher and send other teachers to her school for observation and instruction. He shall conduct teachers' meetings in the model school and have frequent demonstration lessons with classes of children at such meetings. Teachers sent to observe shall be given definite points to consider on which they are required to report.

Work by pupils of the model school shall be frequently sent to other schools of the town.

When new charts, seat-work devices, etc., are introduced, the model teacher will prepare samples for distribution to other schools.

The close correlation between the semi-monthly visits of the supervisor, the monthly meetings with all teachers, the observations at the local model school, and the daily practice in her own school rapidly develop the young teacher so that she soon acquires confidence and some real skill. Scores of Connecticut young women are now being prepared in this way for successful service as teachers. This is being done, too, while they are actually earning a livelihood during the apprenticeship. Through the correspondence courses with the Willimantic and Danbury normal schools and the Danbury summer normal classes other opportunities for improvement are offered.

This plan for the preparation of teachers for rural schools is working so successfully that it is believed its essential principles can be applied in any school system where there is intelligent super-

vision. An organization of the daily activities of a beginner so that the work becomes educative and leads to real improvement of the worker is coming to be recognized as furnishing a very economical and satisfactory means for vocational training. It is now being demonstrated that this principle can be used to advantage in training beginners in the vocation of teaching and even in improving those long in the service.

BOOKS RECEIVED

THE MACMILLAN CO.

City, State, and Nation. By WILLIAM L. NIDA. Cloth. Illustrated. Pp. 331. $0.75.

The Continents and Their People: Africa. By JAMES FRANKLIN CHAMBERLAIN. Cloth. Illustrated. Pp. 210. $0.55.

Elementary Exercises in Agriculture. By S. H. DADISMAN. Cloth. Illustrated. Pp. 105. $0.50.

How Man Conquered Nature. By MINNIE J. REYNOLDS. Cloth. Illustrated. Pp. 249. $0.40.

Literature for Children. By ORTON LOWE. Cloth. Pp. 298. $0.90.

New American Music Reader: Number One. By FREDERICK ZUCHTMANN. Cloth. Pp. 151. $0.25.

New American Music Reader: Number Two, Part One. Cloth. Pp. 104. $0.25.

New American Music Reader: Number Two, Part Two. Cloth. Pp. 148. $0.30.

New American Music Reader: Number Three, Part One. Cloth. Pp. 150. $0.35.

New American Music Reader: Number Three, Part Two. Cloth. Pp. 147. $0.35.

Primary Handwork. By ELLA VICTORIA DOBBS. Cloth. Illustrated. Pp. 124.

School Arithmetic: Primary Book. By FLORIAN CAJORI. Cloth. Pp. 285.

PUTNAM

The Corner-Stone of Education. By EDWARD LYTTELTON. Cloth. Pp. 242. $1.50.

Die Familie Buchholz. Edited by G. H. CLARKE. Cloth. Pp. 75. $0.75.

The Heroes. By CHARLES KINGSLEY. Cloth. Pp. 157. Illustrated. $0.30.

Journal of a Voyage to Lisbon. Edited by J. H. LOBBAN. Cloth. Pp. 116. $0.45.

L'Invasion ou le Fou Yegof. Edited by A. WILSON-GREEN. Cloth. Pp. 344. $0.90.

Livy: The Revolt and Fall of Capua. Edited by T. C. WEATHERHEAD. Cloth. Pp. 166. $0.50.

Livy: Book xxvii. Edited by S. G. CAMPBELL. Cloth. Pp. 218. $1.00.

Prima Legenda: First Year Latin Lessons. By J. WHYTE. Cloth. Pp. 64. $0.40.

The Preface to Dryden's Fables. By W. H. WILLIAMS. Cloth. Pp. 36. $0.25.

J. B. LIPPINCOTT CO.

At the Back of the North Wind. By GEORGE MACDONALD. Simplified by ELIZABETH LEWIS. Cloth. Illustrated. Pp. 126.

Daily English Lessons. By WILLIS H. WILCOX. Cloth. Pp. 252. Illustrated.

GINN & CO.

Outlines of European History. Part II. By JAMES HARVEY ROBINSON and CHARLES A. BEARD. Cloth. Illustrated. Pp. 555.

CHARLES E. MERRILL CO.

Jan and Betje. By MARY EMERY HALL. Cloth. Illustrated. Pp. 122. $0.30.

RAND McNALLY & CO.

Chats in the Zoo. By TERESA WEIMER and R. G. JONES. Cloth. Illustrated. Pp. 139.

HINDS, NOBLE & ELDREDGE

How to Appreciate the Drama. By THOMAS LITTLEFIELD MARBLE. Cloth. Illustrated. Pp. 180. $1.25.

G. E. STECHERT & CO.

Stammering and Cognate Defects of Speech. (Vols. I and II.) By C. S. BLUEMEL. Cloth. Pp. 365 and 391.

SCHOOL ARTS PUBLISHING CO.

Something to Do. Vol. I, No. 1, September, 1914. Paper. Illustrated. Pp. 64 $0.10.

THE UNIVERSITY OF CHICAGO PRESS

Religious Education in the Public Schools of the State and City of New York. By ARTHUR JACKSON HALL. Paper. Pp. 111. $0.50 net.

CURRENT EDUCATIONAL LITERATURE IN THE PERIODICALS[1]

IRENE WARREN
Librarian, School of Education, University of Chicago

Anderson, William L. The stimulative and correlative value of a well-balanced course in commerce and industry. School R. 22:455–64. (S. '14.)

Bennett, Charles A. How may manual training retain its earlier educational values? Man. Train. M. 16:9–15. (S. '14.)

Bobbitt, John Franklin. The school survey: finding standards of current practice with which to measure one's own schools. El. School J. 15:41–54. (S. '14.)

Butler, Nathaniel. Report of the Twenty-sixth Educational Conference of the Secondary Schools in Relation with the University of Chicago. School R. 22:465–77. (S. '14.)

(The) classics and a "bad education." Outl. 107:957–62. (22 Ag. '14.)

Education: the tools and the purpose. Outl. 107:949–51. (22 Ag. '14.)

Gathany, J. Madison. Using magazines in history classes. Outl. 107:1053–56. (29 Ag. '14.)

Giles, F. M. Investigation of study habits of high-school students. School R. 22:478–84. (S. '14.)

Hervey, William Addison. How to test a practical command of French and German. Educa. R. 48:141–50. (S. '14.)

Jones, Adam Leroy. Entrance examinations and college records. Educa. R. 48:109–22. (S. '14.)

Judd, Charles H. Standards in American education. School R. 22:433–43. (S. '14.)

Macdonald, Alice B. Some reflections of a Philistine. Educa. R. 48:123–40. (S. '14.)

Mason, Gregory. Teaching by the movies. The uses of motion pictures in education and an interview with their perfector, Thomas A. Edison. Outl. 107:963–70. (22 Ag. '14.)

Osgood, Edith W. The development of historical study in the secondary schools of the United States. School R. 22:444–54. (S. '14.)

Payne, E. George. The German meisterkurse. Man. Train. M. 16:1–9. (S. '14.)

Raymond, Anan. The new university. Educa. R. 48:151–65. (S. '14.)

Yocum, A. Duncan. The determinants of the course of study. Educa. R. 48:166–83. (S. '14.)

[1] *Abbreviations.*—Educa. R., Educational Review; El. School J., Elementary School Journal; Man. Train. M., Manual Training Magazine; Outl., Outlook; School R., School Review.

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The Lincoln and Douglas Debates. (*Publications of the Chicago Historical Society.*) *By Horace White.*

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This account of the famous debates is notable because the writer accompanied Mr. Lincoln on his tour of Illinois and reported his speeches. Mr. White's later experience as editor of the *Chicago Tribune* and of the *New York Evening Post* peculiarly qualifies him for setting forth adequately the character and effects of the debates.

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